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ABSTRACT

According to studies published since 1966, a number of factors appear to be related to the delivery of special education services in sparsely populated areas. Education should not attempt to "go it alone" in special education efforts, for the more sparse the population, the more necessary it is to involve the cooperation of other elements within the community. When language-different or culturally-different people are the recipients of services, local workers may be trained and used effectively. In the Four Corners Mental Retardation project, local, bilingual, multicultural paraprofessionals were able to communicate with the predominantly Indian and Spanish target population and achieve far more than what professionals or outsiders could have. Two models from the 1971 Memphis Conference on Emerging Models of Special Education for Sparsely Populated Areas show that sometimes initial stimulus must come from outside the target area. In the Powhatan Project, the Virginia Commonwealth University and Powhatan County, Virginia school district developed a model special education program that used university students to provide special education and counseling services. Parental involvement and participation can be incorporated for early education on multiply handicapped children, as evidenced by the Portage Project in Wisconsin. This document discusses research and related studies and lists 12 factors considered critical in the provision of special education services in sparsely populated areas. (DS)

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FACTORS RELATED TO THE PROVISION OF SPECIAL EDUCATION IN SPARSELY POPULATED AREAS

SP. ED. 449 REPORT
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I INTRODUCTION

In 1966, the Western Interstate Commission for Higher Education (WICHE) and the Montana State Department of Public Instruction co sponsored a national research conference entitled Special Education Services in Sparsely Populated Areas. The conference was a concerted attempt to identify and clearly articulate the research questions which required attention in order to develop a literature and basis for special education program-planning in sparsely populated areas. Speakers, who addressed themselves to major topics such as administration, financing, personnel, supportive services and research, all stressed the fact that little success had been achieved in adapting existing urban approaches to special education programs in sparsely populated areas.

Recently, the Council for Exceptional Children underscored the continuing need for attention to special education in rural areas by sponsoring a conference entitled Emerging Models of Special Education for Sparsely Populated Areas. This rather optimistic title suggested that progress had been made since the 1966 conference and that, in fact, models for the delivery of services were emergent. An exhaustive search of the literature leads me to echo Harriet Miller's (1966) words at the WICHE conference:

> Despite rapid escalation in kind and number of educational research projects within the past few years, despite all we hear about creativity,

> imagination and bold thought, new and better approaches to old problems, and new answers to new questions, little recognition and practically no attention have been given to this research problem. There are practically no research and almost no guidelines relevant to the provision of special education programs for youth in geographic areas characterized by great space and few people. (P.1.)

When I attended the Memphis conference in December, 1971, it became clear that some projects have been funded since 1966 and that some planning and some research is being done which might provide insights into the factors which underlie successful delivery of special education services in rural areas. This paper will therefore: 1) elaborate on the problem; 2) review findings from the few studies which have been published since 1966 and underscore the factors related to special education in rural areas; 3) present two models from the Memphis Conference; and 4) list several factors which, according to the studies above, appear to be related to delivery of special education services in sparsely populated areas.

II NATURE OF THE PROBLEM

For the past two decades the United States has undergone such a tremendous urbanization that it is projected (Wheaton, 1967) that by 1980, 70% of our total population will reside in 14 metropolitan areas. With both the financial and student population bases, urban America has been able to develop special education programs second to none in the world. The same success story

is not true of rural America, however. Models for special education which have been developed in urban areas do not transfer readily to rural areas (Jordan, 1966).

While urbanization is the trend, a significant segment of the American people have chosen (or been forced by economic factors) to remain in mainly rural areas of the United States. Factors such as the urban crime rate, pollution, enviroment, cost of living, and a lack of freedom are causing more people to actively seek to move to rural areas (Kirschenbaum, 1971). Taxpayers are demanding, and state legislatures and the courts are mandating, special education services for all handicapped children in their communities. There is urgent need to develop viable programs of special education services in rural areas.

Fitzwater (1968) has compiled data to document the nature of the sparsity factor in school district organization. He indicated that by 1966, ninety per cent of the school districts in the respective states of Minnesota, Montana, Nebraska, New Hampshire, North Dakota, Oklahoma, South Dakota, Vermont and Wyoming had fewer than 1800 pupils.* Further, seventy-five per cent of the school districts in Alaska, Arizona, Arkansas, Colorado, Idaho, Iowa, Kansas, Maine, Missouri, Oregon, Texas and Wisconsin, respectively, had fewer than 1800 pupils enrolled.

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*In the 1967 Census of Governments' classification of districts by size of enrollment, the 1800 pupil size most closely approximates the lowest desirable minimum enrollment for a school district.

Fitzwater (1968) points out that today the lower limit of optimum district size is 10,000 students and ranges up to 30,000 students (P.28).

In the two decades leading up to 1966, redistricting, as a response to the sparsity factor, was widespread. Only six states (Florida, Hawaii, Louisiana, Maryland, Utah and West Virginia) had not made changes in their organization of school districts by 1966. Six other states (Alabama, Connecticut, Massachusetts, New Jersey, Rhode Island and Virginia) had more school districts in the fall of 1966 than they had in 1945. Table I shows that the remaining 38 states all had reductions in numbers of school districts.

A second major response to the sparsity factor in rural areas has been the establishment of intermediate service units. The history and extent of this trend is well documented in the 1968 report of the South Dakota State Legislative Council. Excellent guidelines for school district organization and reorganization are contained in the 1968 project report of the Nebraska Department of Education. In each instance, intermediate districts, co-operative districts or joint agreements have been established to provide the necessary student and financial bases to support services such as special education. Wisconsin has established 19 CESA's state-wide; Texas: 20 RESC's state-wide; and Iowa: 16 RESA's. While this approach provides a partial solution to the sparsity problem, it tends to break down when topography and population become extreme.

TABLE I

RANK ORDER OF THE 38 STATES BY PERCENT REDUCTION IN NUMBER OF SCHOOL DISTRICTS BETWEEN 1945-46 AND FALL 1966

State	Number of Districts 1945-46	Number of Districts Fall 1966	Reduction Number	Reduction Percent
Mississippi	4,194	149	4,045	96.4
Kansas	6,906	349	6,557	94.9
South Carolina	1,703	108	1,595	93.6
Nevada	237	17	220	92.8
Wisconsin	6,393	535	5,858	91.6
Colorado	1,871	183	1,688	90.2
Missouri	8,558	888	7,670	89.6
Idaho	1,114	117	997	89.5
Iowa	4,775	501	4,274	89.5
Illinois	9,861	1,340	8,521	86.4
Minnesota	7,657	1,324	6,333	82.7
Arkansas	2,179	398	1,781	81.7
New York	5,112	986	4,126	80.7
Michigan	4,572	930	3,642	79.6
Oklahoma	4,416	994	3,422	77.5
Pennsylvania	2,543	595	1,948	76.6
North Dakota	2,273	547	1,726	75.9
Oregon	1,607	390	1,217	75.7
Nebraska	6,987	2,388	4,599	65.8
Indiana	1,131	406	725	64.1
Texas	3,605	1,303	2,302	63.8
Delaware	126	51	75	59.5
Alaska	66	27	39	59.1
Ohio	1,622	712	910	56.1
California	2,629	1,187	1,442	54.8
Wyoming	361	173	188	52.1
Washington	691	360	331	47.9
South Dakota	3,415	2,015	1,400	41.0
Montana	1,382	873	509	36.8
Maine	500	342	158	31.6
Kentucky	256	200	56	21.9
New Hampshire	240	199	41	17.1
New Mexico	103	90	13	12.6
Arizona	338	298	40	11.8
Georgia	208	196	12	5.7
Vermont	269	262	7	2.6
North Carolina	171	169	2	1.2
Tennessee	152	151	1	.6

Sources: Office of Education, Federal Security Agency, Biennial Survey of Education in the United States, 1944-46, Statistics of State School Systems, 1945-46, Washington D.C. p. 32. 1966 data from unpublished information compiled by Office of Education, Department of Health, Education and Welfare, Washington, D.C., Fall 1966.

While considerable research (NREL; 1969, Part III) is being done relative to education in sparsely populated areas, very little has been reported concerning special education in these areas. Further, most of those studies reported are descriptive rather than empirical. Each study is briefly reviewed below and factors which relate to special education service-delivery in sparsely populated areas are underscored.

III. RESEARCH AND RELATED STUDIES

Chalfant (1967) completed a study to determine the nature of economic and demographic factors underlying public school provisions for exceptional children in all 101 Illinois counties. In order to compare counties which did provide services with those which did not, he chose 36 variables which he presumed were related to special education provisions. Through factor analysis, he determined that six factors; urbanization, education of parents, socio-economic status of the family, rural occupation, financial ability and population growth, distinguished between counties offering or not offering special education programs. "Urbanization" alone accounted for 55% of the variance.

This study tended to underscore the fact that special education was an urban enterprise. It did point out, however, that special education services were offered in some more sparsely populated areas which were characterized by residents who were of higher socio-economic status, had greater financial ability and had higher levels of educational attainment.

As has been mentioned earlier, the Western Interstate Commission for Higher Education and the Montana State Department of Public Instruction submitted a proposal to fund a national research conference on special education services in sparsely populated areas. The conference was funded by the U.S. Office of Education and held in Denver, March 28-31, 1966. The proceedings present sufficient research questions to keep an army of researchers busy for some years. It is interesting to note, however, that while considerable research has been done on general education and related topics since then (Kniefel and Kniefel, 1970; NREL, 1969), very little has been reported in the area of special education.

WICHE (1969) has reported a special education project carried on in conjunction with four sparsely populated states. The Four Corners Mental Retardation Project was established to enhance service delivery for mentally retarded, culturally different persons in the Four Corners Area (Arizona, Colorado, New Mexico and Utah). This was accomplished by: 1) developing a directory of services; 2) training ten indigenous workers in the fundamentals of mental retardation; 3) placing these workers in local communities to identify mentally retarded individuals and to attempt to obtain necessary services for them; and 4) stimulating existing agencies to offer additional services for the retarded. The main focus of the project was minority groups in the area. Forty-eight per cent of the residents were Indian and eight per cent were Spanish-speaking.

Because the trained workers were indigenous to the area, bilingual, and of multi-cultural background, they were able to communicate with the target population and so achieved far more than professionals or outsiders could have achieved. (Eight of the workers were Indian and two were Spanish).

Perhaps this study has contributed most by demonstrating a means of using paraprofessionals to break the communication barrier between professionals and "language different" communities than it has in real provision of services. Considerable progress was made in the use of these aides as case-finders and referral and follow-up agents.

Chamberlain (1970) reported a three year project to develop and manage a rural psychological service for five co-operating school districts. Following the planning stage of the study, diagnostic and remedial services were established for handicapped children. Inservice training was provided for teachers. Services were rendered by an inter-disciplinary team consisting of psychologists, social workers and speech and reading therapists.

The report of this study does not include data. Several factors which are germane to the problem of special education in rural areas are mentioned. Staff were apparently hired using Title III funds. Local school administrations were not properly consulted during the planning stage and subsequently failed to make budgetary provisions for the continuation of the service beyond the life of the project. This factor

should be underscored as one needing more attention in future model special education projects in rural areas. In addition, this study demonstrated that such a project must be planned with maximum community input.

These, then, are the few studies which have been published relative to special education in sparsely populated areas. It became apparent at the Memphis conference, however, that several important studies are underway at this time. Two such studies are reported in detail below.

IV. THE MEMPHIS CONFERENCE ON EMERGING MODELS OF SPECIAL EDUCATION FOR SPARSELY POPULATED AREAS.

A. Powhatan Project

Nature and objectives:

This project is the result of an agreement between the Virgina Commonwealth University and the Powhatan County Schools. Specifically, its objectives are to: develop a model special education program in Powhatan County Schools, and, to utilize this program to provide extensive practica experiences to Virginia Commonwealth University students in various training programs.

Powhatan County:

Powhatan County, Virginia is a rural area of about 268 square miles. It is an economically blighted area with only a small sawmill, commercial sewing mill and the public schools as "industries". It has no hospital or clinic and has one doctor and one dentist as its total medical resources.

Inspection of the socio-economic strata reveals a clustering at both ends; namely, a small group of affluent businessmen and a much larger group of poorer people. There is no middle class. Ethnically, most upper class are found among the 40% white residents and the lower class are among the 60% black citizens.

The Powhatan schools, following several court cases, integrated for the 1969-70 school year. In recent years Huguenot Academy, a private school, has flourished and is serving 300 children in grades 1-12. The academy is supported by employers and businessmen---the same people who in 1969 turned down a bond issue required to build a new high school. There are 1100 children served by this rural school system exclusive of those at Huguenot Academy. There are no special education or counseling services in the school system.

University Involvement

In the organizational phase of the project, university and public school officials devoted much time to efforts to obtain: 1) community involvement, 2) disability identification, 3) in-service education, 4) curriculum planning, 5) administrative planning, 6) parent counseling and 7) limited pilot programming.

Students from Virginia Commonwealth University were actively involved in the project through participation in task forces. Each task force was headed up by a university staff member who was certified to do the professional work

required. For example, a group of student nurses formed a task force under the direction of the Director of Nursing Education and did all the physical, and some of the gross hearing and vision screening. Similar student-staff task forces were formed in the areas of counseling, special education, occupational therapy and administration.

Discussion

The Powhatan Project has attempted to demonstrate that a mutually beneficial arrangement between a rural school division and a staff training institution is tenable. The results of the initial steps of pupil screening, program planning and teacher in-service are gratifying. Where no special education services were formerly available, programs have been initiated for children who have learning problems. Furthermore, the university claims a marked expansion of the types of internship experiences open to students.

The Powhatan Project was planned and initiated with Federal funding. The special education program being designed is one that will be realistic in terms of what the school system can afford when outside funding terminates. Whether or not this particular project is successful, the model of university-school system co-operation would seem to have great potential for sparsely populated areas.

The experiences of project staff during the past three years tend to underscore the following factors relating to

the successful provision of special education service in the Powhatan area:

1) initial stimulous needs to come from outside the target area.

2) intensive involvement of community agencies and individuals during the planning phases is vital.

3) use of locally employed teachers and inservice training as the source of specialized staff is realistic.

4) planning within the financial means of the school system and community is necessary.

B. The Portage Project

One group of children who are in great need of services and who pose major problems of service delivery in rural areas are the multiply handicapped. "The Portage Project" represents a home approach to the early education of multiply handicapped children in a rural area of Wisconsin consisting of 23 school districts.

Children Served:

Children between birth and 6 years of age, having more than one handicap, and who are not eligible for public school placement, are eligible for enrollment.

Curriculum:

An individualized curriculum is prescribed for each child. The child is evaluated with the use of a series of tests and developmental scales. This evaluation helps to determine where the child is functioning in the areas of 1) cognitive, 2) socialization, 3) motor, 4) self-help and 5) communication skills.

Equipped with this information the Home Trainers, with assistance from the project's resource staff, determine what activities should be prescribed in each developmental area.

The child is taken, step by step, sometimes rapidly or slowly, toward acquiring skills required to continue at his expected growth and developmental rate.

Home Trainers:

Home Trainers, equipped with this individually prescribed curriculum and required materials visit the home one day per week. These visits usually consist of 1) discussing the child's progress with the parents, 2) describing the activities to be conducted during the visit, 3) continuing with previously assigned activities, depending on the child's progress, 4) demonstrating methods and techniques, 5) observing the parent working with the child and offering advice and suggestions, and 6) discussing with the parents, activities which are to be conducted for the time until the next home visit. The latter task includes procedures for recording and reporting the child's weekly, monthly and quarterly progress.

Program Objectives:

Through early intervention, the project is designed to improve the child's later school adjustment and achievement whether he is enrolled in a public school system, a day care center or a residential facility.

The child's records, including his curriculum, progress reports and evaluation information, accompany him to whatever program enrolls him. This information is interpreted to the enrolling agency by the Home Trainer in a conference with the child's teacher and the program administrator's ongoing consultation is available.

Parental Involvement:

The key to the project's success is parental involvement and participation. A common goal is developed between the parents and the Home Trainer, to assist the child to develop to his maximum potential. During the initial gathering of base-line data, parents are the prime informants. They are also encouraged to contribute to planning by offering suggestions and criticisms. Parents conduct the prescribed activities daily throughout the week and record the child's daily progress charts. Both parents and Home Trainer share responsibility for the child's successes and failures.

Discussion:

It has been my experience that the multiply handicapped child in rural Saskatchewan received early attention from medical personnel but seldom received early "educational" or developmental assistance. Later, when the child reached legal school age, he was often bounced among residential or special education facilities, each declaring stoutly that the child's "primary" handicap placed him beyond its services.

Granted that multiply handicapped children require early education intervention, often parents of such children require assistance and counseling as well. It seems clear from the research that Karnes (1969) has done that parental involvement could produce results to the benefit of handicapped children in such a program. Given the realities of low incidence and great distances separating multiply handicapped children in rural areas, "The Portage Project" suggests a relatively inexpensive and potentially effective model for delivery of special services. The important factors appear to be "mobile services" and "parental involvement".

C. Other Gleanings

Several shared-service or intermediate-district arrangements for special education in sparsely populated areas were described at the conference. Typical of these was the Educational Service Unit No.13 administered from Scotts Bluff, Nebraska, serving Banner and Scotts Bluff counties. Hughes (1971), described the range of psychological, speech and hearing, homebound, home visitation, in-service education and reading services available to all school children of the districts served. The four most common administrative designs for special education, namely; 1) single district, 2) host district or co-operative, 3) service agency model, and 4) formal intermediate district, were described by Weatherman (1971). He indicated that some version of the intermediate district seems most practical for sparsely populated areas.

Vergason (1971) presented the most scholarly and interesting paper at the Memphis Conference. He traced the history of the educational accountability movement and then prognosticated on the effects this movement will have on special education in sparsely populated areas. He pointed out the fact that 13 state legislatures have or are in the process of passing laws relative to educational accountability. Administration, and teachers through their administrators, will be held accountable for producing results in the education of handicapped children.

One important comment, which came at the conclusion of Vergason's (1971) paper requires emphasis here. He said that if Education thinks that it can "go it alone" in the provision of Special Education and ancillary services in sparsely populated areas, then it is deluding itself. The more sparse the population, the more necessary it will be to seek the co-operation and joint efforts of every health, social service, church, and voluntary agency in the area.

V. CRITICAL FACTORS IN THE PROVISION OF SPECIAL EDUCATION SERVICES IN SPARSELY POPULATED AREAS

Today we are being asked to plan and deliver special education services to all exceptional children, including those living in sparsely populated areas. In planning programs of special services for these areas, educators do not have extensive research or experiential bases from which

to work. The following factors have, however, been identified as some which must be considered if we are to plan and provide effective and efficient programs within the financial means of mainly rural areas:

1) The sparsity factor is a variable which will pose unique service delivery problems in each education jurisdiction.

2) Outside impetus may be required in order to initiate action toward program planning.

3) Full community participation in every phase of service-planning will facilitate later co-operation and acceptance of services.

4) Staffing must reflect a reasonable financial commitment for the communities served. Initial staffing with project funds can pose later problems.

5) Education should not attempt to "go it alone". Special services in sparsely populated areas must reflect the most effective joint planning possible from all agencies serving the geographic area.

6) When language-different or culturally-different people are the recipients of services, indigenous people may be trained and used effectively as paraprofessionals.

7) Specialized staff may be difficult to hire and retain. Inservice or additional training for local teachers may provide a more reliable special education staff.

8) While itinerant specialized staff are important, a balance must be maintained between such staff and those who are school based.

9) Consumers (parents of exceptional children) should have adequate representation on special education advisory boards.

10) Communication is important. Unless a community is "brought along with" an evolving program, the special education program can become isolated and therefore less effective.

11) The general educational levels of the communities served will govern the nature of the special education programs possible.

12) Effective use of "fee for service" arrangements and consultants may reduce the total numbers of permanent staff necessary. Temporary "staff exchanges" with sparsely populated areas which have already established programs may also be effective.

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